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RONALD ZIBELLI
XEROX CORPORATION
XEROX SQUARE 20A
ROCHESTER, NY 14644

EXAMINER
POON, KING Y

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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Paper No. 30

Application Number: 08/878,978
Filing Date: 6/19/1997
Appellant(s): Stephen F. Linder, et al.

Jeannette M. Walder
For Appellant

EXAMINER'S ANSWER

This is in response to appellant's brief on appeal filed 3/28/2002.

(1) Real Party in Interest

A statement identifying the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

(3) Status of Claims

The statement of the status of the claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Invention

The summary of invention contained in the brief is correct.

(6) Issues

The appellant's statement of the issues in the brief is substantially correct. The changes are as follows: The issue is whether the final rejection of claims 1, 3-5, 7-9 under 35 USC 103(a) as being unpatentable over Ueda and Matsunawa, the final rejection of claim 2 under 35 USC 103(a) as being unpatentable over Ueda and Matsunawa as applied to claim 1 and further in view of Robinson, and the final rejection of claims 1-5, 8, 9 under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in a way as to reasonable convey to one skill in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention, are sustainable.

(7) Grouping of Claims

The rejection of claims 1-5, 8, and 9 stand or fall together because appellant's brief does not include a statement that this grouping of claims does not stand or fall together and reasons in support thereof. See 37 CFR 1.192(c)(7).

(8) Claims Appealed

The copy of the appealed claims contained in the Appendix to the brief is correct.

(9) Prior Art of Record

The following is a listing of the prior art of record relied upon in the rejection of claims under appeal.

6,008,812	Ueda et al.	12-1999
4,783,838	Matsunawa	11-1988
5,774,721	Robinson	6-1998

(10) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

1. Claims 1-10 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The term: non neutral object oriented image data, black object oriented image data, grey object oriented image data, and white objected oriented image data, was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. It is unclear whether the non neutral object oriented image data, black object oriented image data, grey object oriented image data, and white objected oriented image data are referring to the image data that is created by using object oriented programming, or that the image data would be processed according a particular object.

2. Claims 1, 3-5, 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ueda et al. and Matsunawa.

Regarding claims 1, 4: Ueda teaches a system (fig. 1) for processing object-oriented graphic/text image data, (see photograph, graphic, text, and bitmap, of column 5 line 25-35) wherein the object-oriented graphic/text image data comprises image data pertaining to an image object, (e.g. an text) comprising:

a first parser circuit (program step, fig. 3, of CPU 12, abstract) for parsing the

object-oriented graphic/text image data into non-neutral object-oriented text image data (text, fig. 16a) and neutral object-oriented graphic image data; (photographic and graphics image, fig. 16a); whereby the object's neutral object-oriented graphic image data is processed separately (column 26 line 1-15, an image element is retrieved and processed by CPU 12) from the object's non-neutral object-oriented text image data. Ueda also teaches that the neutral image object oriented graphic image data are to be processed by a binarization process (Column 26 line 20-25, column 8 line 8-10), and that the processed neutral object oriented graphic image data and the non neutral object oriented text image are further processed. (See the processed image data would be printed (further processed) to form a composite image, column 8 line 37-40)

Ueda does not teach: a second parser circuit for parsing the neutral object-oriented graphic image data into black object-oriented image data, grey object-oriented image data, and white object-oriented image data; and a neutral color processing circuit for processing the black object-oriented image data, the grey object-oriented image data, and the white object-oriented image data.

However, Matsunawa, in the same area of converting a multi-gradation image into binary image (fig. 1b, Matsunawa, column 8 line 5-10, Ueda) teaches to use a parser circuit (11, fig. 18, column 13 line 20-27) to parse the multi-gradation image into black object-oriented image data, (see value 16 of fig. 2, fig. 7b) grey object-oriented image data, (value 2-15, fig. 2, fig. 7b) and white object-oriented image data; (value 0 of fig. 3a, fig. 7b) and a neutral color processing circuit (14, fig. 18, column 13 line 25-32) for processing the black object-oriented image data, the grey

object-oriented image data, and the white object-oriented image data, (Fig. 7) such that a binary image is created. Matsunawa also teaches that his invention can be applied to image composed of black, grey and white. (Column 15, lines 55-58)

At the time of invention, it would have been obvious to one of ordinary skill in the art to have modified the image processing system of Ueda by providing the system a second parser circuit for parsing the neutral object-oriented graphic image data into black object-oriented image data, grey object-oriented image data, and white object-oriented image data; and a neutral color processing circuit for processing the black object-oriented image data, the grey object-oriented image data, and the white object-oriented image data to carry out the binarization process of Ueda, as taught by Matsunawa. The suggestion of doing so would have benefit the system of Ueda in performing the conversion of multi-gradation images into binary images (column 8 line 5-10) such that an unpleasant strip domain on the halftone portion of the image would be eliminated, (column 1 line 43-50, Matsunawa), and at the same time, complex circuitry would also be avoided. (Column 1 line 40-45, line 65-67, Matsunawa)

Regarding claims 3, 5: Matsunawa teaches that the system as claimed in claim 1, wherein the neutral processing circuit processes only the black, grey, and white object-oriented image data according to a selected feature set. (See column 14 line 27-36)

Regarding claims 8-9: Ueda teaches that the image object comprises text, graphic, bitmap or photographic. (see photograph, graphic, text, and bitmap, of column 5 line 25 and 35)

3. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ueda et al. and Matsunawa as applied to claim 1 above, and further in view of Robinson.

Regarding claim 2: Ueda and Matsunawa have disclosed all of the claim limitations as recited in claim 1 except a black processing circuit to process the black object oriented image data; a grey processing circuit to process the grey object oriented image data; and a white processing circuit to process the white object oriented image data.

Robinson, in the same area of using processors to process data, teaches the use of different processors to perform different tasks and each processor processes only a specific task. (See column 8 line 1-25) The suggestion of doing so is to improve on the speed and reduce the complexity of real time processor system cause by the use of a single processor to process multiple tasks. (See column 3 line 15-35)

It is for this reason that at the time of invention, it would have been obvious to one of ordinary skill in the art to have modified Ueda and Matsunawa's image processing system by having a black processing circuit to process the black object oriented image data; a grey processing circuit to process the grey object oriented image data; and a white processing circuit to process the white object oriented image data, as taught by Robinson. The suggestion of doing so is to improve on the speed and reduce the complexity of real time processor system cause by the use of a single processor to process multiple tasks. (See column 3 line 15-35, Robinson) Therefore, it would have been obvious to combine Robinson, Ueda and Matsunawa to obtain the invention as specify in claim 2.

(11) Response to Argument

Appellant, at page 5 (appeal brief), argues that the Ueda does not appear to teach parsing any of the categories of images (figs. 11-15) or objects into neutral object oriented image data and non neutral object oriented image data.

In response, Column 5, lines 25-35, Ueda, teaches the image data (the image data that has photograph, graphic and text, e.g., the image of fig. 9) to be processed by CPU 12 (column 5, line 3) are object oriented image data because the image data comprising image data pertaining to an image object (e.g., text) The image data are categorized (parsing) into photograph, graphic, and text. The text, the graphic, and the photograph are also object oriented image data because, for example, the graphic image data comprising image data pertaining to an image object. (Graphic)

As admitted in the appeal brief, (page 5), Ueda's photographic (categories) has neutral image data and non neutral image data; graphic has neutral image data and non neutral image data and text has neutral image data and non neutral image data; and the bottom of page 2 (appeal brief) admits that the neutrals refer to color of the image data.

The first parser circuit (program step, fig. 3, of CPU 12, abstract) of Ueda parses the object-oriented graphic/text image data (object oriented image data) into text image data (text, fig. 16a) and graphic image data; (photographic and graphics image, fig. 16a). The text image data (text, fig. 16a) and graphic image data; (photographic and graphics image, fig. 16a); are parsed into color of the image data. (E.g., color adjustment, fig. 16a, color, fig. 14, and font

color, fig. 15, and column 7, lines 1-15) and non color data of the object. (e.g. screen adjustment, fig. 16a, used for image type data, column 18, lines 9-25)

Therefore, Ueda et teaches parsing the categories of images (figs. 11-15) or objects into neutral object oriented image data (color of the object) and non neutral object oriented image data. (Non color data of the object, e.g. screen adjustment, fig. 16a, used for image type data, column 18, lines 9-25)

Appellant, page 6 (appeal brief), argues that the Matsunawa does not teach a parser circuit for parsing neutral object oriented image data into black object oriented image data, grey object oriented image data, and white object oriented image data.

In response, Matsunawa, teaches converting a multi-gradation image into binary image (fig. 1b) using a parser circuit (11, fig. 18, column 13 line 20-27) to parse the multi-gradation image into black object-oriented image data, (see value 16 of fig. 2, fig. 7b) grey object-oriented image data, (value 2-15, fig. 2, fig. 7b) and white object-oriented image data; (value 0 of fig. 3a, fig. 7b).

Matsunawa's image data is object oriented because, column 5, lines 15-27, teaches different image data (e.g., the pale binary image or the image that is darkly defaced) should be processed with different gradation curve. The image data to be processed comprises image data pertaining to an image object. (The object that is a pale binary image or the object that is an image that is darkly defaced)

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

King Y. Poon

June 11, 2002

Conferees:

David Moore
Supervisory Patent Examiner
Art Unit 2624

DAVID MOORE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600

Gabriel Garcia
Primary Examiner
Art Unit 2624

GABRIEL GARCIA
PRIMARY EXAMINER